



2836

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of
Mototsugu OKUSHIMA
Serial No. 09/852,735
Filed May 11, 2001

Atty. Docket No. 8023-1018
CONFIRMATION NO. 4991
GROUP 2836
Examiner Zeev Kitov

ESD PROTECTION APPARATUS AND METHOD FOR FABRICATING THE NAME

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

TECHNOLOGY CENTER 2800

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In compliance with Rules 1.97 and 1.98, and in fulfillment of the duty of disclosure under Rule 1.56, the accompanying documents, copies of which are attached to this statement, are made of record on the enclosed sheet.

A concise explanation of the relevance of these items is that these references were cited by the Korean Patent Office in the corresponding Korean application. A copy of the Korean Official Action in which they were cited is attached hereto, with what is believed to be the pertinent portion enclosed in a box. An English translation of the enclosed portion is also attached hereto.

The Japanese reference is equivalent to the Korean reference.


Under the provisions of 37 CFR 1.97(e), the undersigned hereby certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign Patent Office in a counterpart

foreign application not more than three months prior to the filing of this Statement.

Respectfully submitted,

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June 27, 2003

Re: OKUSHIMA - U.S. Patent Appln. 09/852,735
Ref. NE212-US

Claims 1, 2 and 11 of the present application relate to an ESD protection Device, comprising a trigger element having a diode broken down by excess-voltage (forward voltage) impressed on the semiconductor pad, and a vertical bi-polar transistor for discharging a stored charge of the pad electrically connected by the breakdown of a single or a series of multiple diodes. However, this could be easily invented by one of ordinary skill in the art from the composition of a semiconductor circuit where a protection element base is triggered by at least one trigger means (diode, resistor) as disclosed in Citation 1 (Korean Laid-Open Patent Publication 1999-30302), and from the composition of a protection element which uses a bi-polar transistor having a resistor connected between the base of the bi-polar transistor and the power voltage, as well as by using a Zener diode connected between the base of the bi-polar transistor and a mutual connector as disclosed in Citation 2 (US Patent 5,276,582).

Attachments

Attachment 1:

Korean Laid-Open Patent Publication 1999-30302
(April 26, 1999) 1 copy

Attachment 2:

US Patent 5,276,582 (January 4, 1994) 1 copy